

Abstract of the Disclosure

5 A metrology instrument for measuring grating-
like microstructures on a sample for parameters of
interest is characterized by an illumination spot that is
elongated. The elongated illumination spot is produced
by providing the designing the illumination optics to
have a limiting aperture that is also elongated. The
limiting aperture and corresponding illumination spot
10 will have respective long directions that are
perpendicular to each other. The sample is supported in
a measurement relation to the instrument wherein the
illumination spot is oriented generally transverse to
linear elements of a microstructure. The microstructure
15 can be also be a two-dimensional bigrating, with the
illumination spot on a row or column of the bigrating.